

### News Release

## **Defense Advanced Research Projects Agency**

Harnessing American Ingenuity

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UPDATED, October 2, 2006: Congress has changed the Secretary of Defense's authorities and DARPA no longer has authority to carry out programs to award cash prizes. Therefore, DARPA has announced that the top three teams to finish the 60-mile Urban Challenge course in less than six hours will receive trophies rather than cash prizes. Track B participants will not receive cash prizes for completing qualifying events, but will be eligible to compete for the trophies to be awarded in the final event. Track A participants will continue to receive up to \$1 million in technology development funds for achieving key technical milestones.

# DARPA OUTLINES PLANS FOR THIRD GRAND CHALLENGE Urban Challenge Conference Attracts Hundreds

Reston, Va. – More than 300 engineers, scientists, students, backyard innovators gathered on Saturday, May 20 at a Defense Advanced Research Projects Agency (DARPA) conference to hear details on DARPA's third Grand Challenge: the Urban Challenge scheduled for November 3, 2007.

The conference participants—and hundreds more who tuned into a live webcast—were told the challenge is to build unmanned, autonomous, ground robotic vehicles that can operate safely in an urban environment. The driverless vehicles will have to autonomously merge into moving traffic, navigate traffic circles, negotiate busy intersections, and avoid a variety of obstacles, including other moving vehicles in a mock urban setting designed to represent the types of city streets where military supply missions operate today.

"The Grand Challenge has been an unqualified success in attracting robotic enthusiasts from all walks of life to develop technology that will someday save the lives of American men and women on the battlefield," said DARPA Director Dr. Tony Tether. "The Urban Challenge is a more difficult problem to solve than what competitors faced in Grand Challenge '05, but I believe the participants will come forward with innovative solutions. I'm thrilled that so many people want to compete. There is every reason to believe these enthusiasts will accelerate autonomous ground vehicle technology faster than what would be possible with traditional research."

The Urban Challenge will take place at an undisclosed location in the western part of the United States. Vehicles will be tested on simulated military supply missions of 60 miles through the urban area. The vehicle that successfully completes the missions the fastest in fewer than six hours wins a \$2 million prize; second place wins \$500,000, and third place wins \$250,000. DARPA said the prize awards are contingent on Congressional extension of DARPA's authority to award cash prizes.

DARPA introduced a new two-track system for teams to qualify and compete in the Urban Challenge. One track allows teams to submit detailed proposals in response to a DARPA solicitation for up to \$1

million of technology development funds. Competitors that choose not to submit a proposal or are not selected to receive funding can still compete on the second track and win cash prizes. Teams submit applications, and the field is narrowed in a series of qualification activities. Each team selected as a semifinalist to compete in the National Qualification Event (NQE) will be awarded \$50,000, and another \$100,000 if they are successful in the NQE and selected to compete in the Urban Challenge main event. These prizes are also contingent on Congressional extension of DARPA's authority to award prizes.

The two tracks are designed to speed technology development and ensure the widest possible participation in the Urban Challenge. Teams from both tracks will compete as equals for the top three prizes in the final event.

The DARPA Grand Challenge Web site (http://www.darpa.mil/grandchallenge) is the primary source for information about the Urban Challenge event and includes frequently asked questions, eligibility information and links to the solicitation and proposer information pamphlet.

### ABOUT DARPA

DARPA is the central research and development organization for the Department of Defense (DoD). The Agency manages and directs basic and applied research and development projects for DoD and pursues research and technology that provide dramatic advances in support of military missions. Congress has authorized DARPA to award cash prizes as a means of recognizing outstanding achievements in Defense-related research and development.

#### ABOUT THE DARPA GRAND CHALLENGE

DARPA has sponsored two previous Grand Challenge competitions. The first was held in March 2004 and featured a 142-mile desert course. Fifteen autonomous ground vehicles attempted the course, and no vehicle finished. In the 2005 Grand Challenge, four autonomous vehicles successfully completed a 132-mile desert route under the required 10-hour limit, and DARPA awarded a \$2 million prize to "Stanley" from Stanford University. The Urban Challenge will feature autonomous ground vehicles executing military supply missions safely and effectively while in a mock city environment, merging into moving traffic, navigating traffic circles, negotiating busy intersections, and avoiding obstacles.